

ABSTRACT

A continuous process of forming a highly smooth surface on a metallic tape by passing a metallic tape having an initial roughness through an acid bath contained within a polishing section of an electropolishing unit over a pre-selected period of time, and,
5 passing a mean surface current density of at least 0.18 amperes per square centimeter through the metallic tape during the period of time the metallic tape is in the acid bath whereby the roughness of the metallic tape is reduced. Such a highly smooth metallic tape can serve as a base substrate in subsequent formation of a superconductive coated conductor.